

IN THE CLAIMS:

1. (Currently amended) A process for preparing bleached mechanical pulp having high brightness from wood chips ~~comprising~~ consisting essentially of the steps, in order, of impregnating wood chips having low bleachability with a chemical liquor consisting essentially of an aqueous solution of an alkaline inorganic compound and a chelating agent at a pH range of 7-12 and then removing ~~[[the]]~~ said impregnating chemical liquor from ~~[[the]]~~ said chips, next followed by ~~[[a]]~~ the sequential ~~[[step]]~~ steps, in order, of (a) defibration by primary refining, bleaching, and beating by secondary refining, or (b) defibration by primary refining, beating by secondary refining and bleaching, wherein the step of impregnating comprises compressing the chips, immersing the chips under compression or after compression in ~~[[the]]~~ said chemical liquor and releasing pressure to impregnate them with ~~[[the]]~~ said chemical liquor, and wherein the step of removing the impregnated chemical liquor comprises compressing the chips impregnated with ~~[[the]]~~ said chemical liquor to drain the impregnating chemical liquor from the chips.

Claim 2 (Cancelled)

3. (Previously presented) The process for preparing mechanical pulp according to claim 1 characterized in that the chemical impregnation step comprises compressing the chips at a compression ratio of 4:1-16:1 and releasing pressure to impregnate them with the chemical liquor and the step of removing the impregnating chemical liquor comprises compressing the chips impregnated with the chemical liquor at a compression ratio of 4:1-16:1 to drain the impregnating chemical liquor.

4. (Currently amended) The process for preparing mechanical pulp according to claim 1 characterized in that ~~the chemical impregnation step comprises compressing the chips at a compression ratio of 4:1-16:1 and releasing pressure to impregnate them with the chemical liquor and the step of removing the impregnating chemical liquor comprises compressing the chips impregnated with the chemical liquor at a compression ratio of 4:1-16:1 to drain the impregnating chemical liquor~~ said wood chips having low bleachability have high levels of flavonoids.

5. (Previously presented) The process for preparing mechanical pulp according to claim 1 characterized in that the wood chips are single chips or mixed chips of two or more wood species having low bleachability selected from Larix, Pseudotsuga, Cryptomeria, Tsuga, Thuja and Pinus.

6. (Previously presented) The process for preparing mechanical pulp according to claim 1 characterized in that the wood chips are single chips or mixed chips of two or more wood species having low bleachability selected from Larix, Pseudotsuga, Cryptomeria, Tsuga, Thuja and Pinus.

7. (Previously presented) The process for preparing mechanical pulp according to claim 3 characterized in that the wood chips are single chips or mixed chips of two or more wood species having low bleachability selected from Larix, Pseudotsuga, Cryptomeria, Tsuga, Thuja and Pinus.

8. (Previously presented) A process for preparing bleached mechanical pulp having high brightness comprising the steps of in order (a) defibrating wood chips having low bleachability by primary refining, (b) washing pulp fibers formed by defibration such that defibrated pulp is diluted with water at a temperature of 5-95 °C to a concentration of 0.5-5.0

%, and is dehydrated by a press on a filter and such that the washing efficiency is 52.6-99.2 %, (c) bleaching the pulp fibers, and (d) further beating them by secondary refining to give bleached mechanical pulp having a Hunter brightness of 45-65 %.

9. (Previously presented) The process for preparing mechanical pulp having high brightness according to claim 8 characterized in that the wood chips are single chips or mixed chips of two or more hard bleaching wood species selected from Larix, Pseudotsuga, Cryptomeria, Tsuga, Thuja and Pinus.

10. (Previously presented) The process for preparing mechanical pulp having high brightness according to claim 8 characterized in that the step of washing defibrated pulp comprises dilution with water at a temperature of 5-95°C and dehydration by a press on a filter and the washing efficiency is 52.6-94.7%.

Claim 11 (Cancelled)

12. (Original) The process for preparing mechanical pulp having high brightness according to claim 8 characterized in that the step of bleaching defibrated pulp after washing comprises single-stage bleaching with an oxidizing agent or a reducing agent.

13. (Original) The process for preparing mechanical pulp having high brightness according to claim 9 characterized in that the step of bleaching defibrated pulp after washing comprises single-stage bleaching with an oxidizing agent or a reducing agent.

14. (Original) The process for preparing mechanical pulp having high brightness according to claim 10 characterized in that the step of bleaching defibrated pulp after washing comprises single-stage bleaching with an oxidizing agent or a reducing agent.

15. (New) The process of claim 1, wherein removal of the impregnating chemical liquor from the chips is next followed by the sequential steps, in order, of defibration by primary refining, bleaching, and beating by secondary refining.

16. (New) The process of claim 1, wherein removal of the impregnating chemical liquor from the chips is next followed by the sequential steps, in order, of defibration by primary refining, beating by secondary refining and bleaching,